

Application No.: 10/714,336

Docket No.: JCLA11475

In The Claims:

Please amend the claims as follows:

Claims 1-23. (cancelled)

Claim 24. (currently amended) A package substrate adapted to carry a die of a wire bonding type, the package substrate at least comprising:

a substrate having a surface, a power pad, a ground pad and a signal pad, wherein the surface of the substrate ~~having~~ has a die bonding area, and wherein the power pad, the ground pad and the signal pad are disposed outside the die bonding area;

at least one passive component disposed between the power pad and the ground pad, wherein the passive component ~~having~~ has a power electrode connected to the power pad and a ground electrode connected to the ground pad;

a wire connecting the die bonding area and one electrode and not crossing over the passive component;

a first continuous gold layer on the exposed surface of the power electrode and the exposed surface of the power pad;

a second continuous gold layer on the exposed surface of the ground electrode and the exposed surface of the ground pad; and

a third gold layer on the exposed surface of the signal pad.

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Claim 25. (previously presented) The package substrate of claim 24, further comprising a patterned solder mask layer disposed on the surface of the substrate, wherein the patterned solder mask layer exposes the surfaces of the power pad, the ground pad and the signal pad.

Claim 26. (previously presented) The package substrate of claim 24, further comprising a patterned solder mask layer disposed on the surface of the substrate, wherein the patterned solder mask layer has at least one opening.

Claim 27. (previously presented) The package substrate of claim 24, wherein the passive component is an inductor.

Claim 28. (previously presented) The package substrate of claim 24, wherein the passive component is a capacitor.

Claim 29. (previously presented) The package substrate of claim 24, wherein at least one electrode is made of Sn-Pb alloy.

Claim 30. (previously presented) The package substrate of claim 24, wherein the power pad is between the ground pad and the signal pad.

Claim 31. (previously presented) A package substrate adapted to carry a die of a wire bonding type, the package substrate at least comprising:

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a substrate having a surface, a power pad, a ground pad and a signal pad, wherein the surface of the substrate ~~having~~ has a die bonding area, and wherein the power pad, the ground pad and the signal pad are disposed outside the die bonding area;

at least one passive component disposed between the power pad and the ground pad, wherein the passive component ~~having~~ has a power electrodes connected to the power pad and a ground electrode connected to the ground pad;

a wire connecting the die bonding area and one electrode and not crossing over the passive component;

a first continuous nickel layer on the exposed surface of the power electrode and the exposed surface of the power pad;

a second continuous nickel layer on the exposed surface of the ground electrode and the exposed surface of the ground pad; and

a third nickel layer on the exposed surface of the signal pad.

Claim 32. (previously presented) The package substrate of claim 31, further comprising a patterned solder mask layer disposed on the surface of the substrate, wherein the patterned solder mask layer exposes the surfaces of the power pad, the ground pad and the signal pad.

Claim 33. (previously presented) The package substrate of claim 31, further comprising a patterned solder mask layer disposed on the surface of the substrate, wherein the patterned solder mask layer has at least one opening.

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Claim 34. (previously presented) The package substrate of claim 31, wherein the passive component is an inductor.

Claim 35. (previously presented) The package substrate of claim 31, wherein the passive component is a capacitor.

Claim 36. (previously presented) The package substrate of claim 31, wherein at least one electrode is made of Sn-Pb alloy.

Claim 37. (previously presented) The package substrate of claim 31, wherein the power pad is between the ground pad and the signal pad.

Claim 38. (currently amended) A package substrate adapted to carry a die of a wire bonding type, the package substrate at least comprising:

a substrate having a surface, a power pad, a ground pad and a signal pad, wherein the surface of the substrate ~~having~~ has a die bonding area, and wherein the power pad, the ground pad and the signal pad are disposed outside the die bonding area;

at least one passive component disposed between the power pad and the ground pad, wherein the passive component ~~having~~ has a power electrodes connected to the power pad and a ground electrode connected to the ground pad;

a wire connecting the die bonding area and one electrode and not crossing over the passive component;

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a first continuous gold-nickel-alloy layer on the exposed surface of the power electrode and the exposed surface of the power pad;

a second continuous gold-nickel-alloy layer on the exposed surface of the ground electrode and the exposed surface of the ground pad; and

a third gold-nickel-alloy layer on the exposed surface of the signal pad.

Claim 39. (previously presented) The package substrate of claim 38, further comprising a patterned solder mask layer disposed on the surface of the substrate, wherein the patterned solder mask layer exposes the surfaces of the power pad, the ground pad and the signal pad.

Claim 40. (previously presented) The package substrate of claim 38, wherein the passive component is an inductor.

Claim 41. (previously presented) The package substrate of claim 38, wherein the passive component is a capacitor.

Claim 42. (previously presented) The package substrate of claim 38, wherein at least one electrode is made of Sn-Pb alloy.

Claim 43. (previously presented) The package substrate of claim 38, wherein the power pad is between the ground pad and the signal pad.